

SEQUENCE LISTING

SEQ ID NO : 1

bmaI1:

ATGCGAACTTTCGTTCATGGCGACGGGCGCCTGCCGAGCGACTTGGCGGCTG
 ATCTGGGCCTTATCGGCACGGAGTTT
 CGTCGAGCAGCTCGGCTGGAAACTGCCGTCGGCAAGCGAAGGGTCGAGCG
 GGATCAGTACGATCGCGACGATACCGTCT
 ATGTGTTGCCCGCGACGACGACGGGAAATCTGCGGCTGCGCCCGCTGCT
 GCCGACGACCCGCCGTATCTGCTGAAG
 GAACTGTTCCCGACGCTGGTCGCGCAAGACATGCCGTTGCCGCAATCCGCCG
 CCGTCTGGGAATTGTCGCGCTTCGCGC
 GAACGCCGAGGATCGGCCGGGGCGGCAACCCGCCCTGGCGGTGCGGCC
 GATGCTCGCCGCCGTCGACTGCGCC
 CGCGGCTTGGCGCGAAGCAACTGATCGCGTACGTTCTGAGCATGGAGCG
 CCTGTTCCGCCGGATCGCGTGCACCG
 CACCGGGCGGGGCCCGCGCAGCAGATCGACGGCGCATGGCGTGCCTGCT
 GGATCGACCTCGACCGCGAAACGCTCG
 CGCGCTCGATCTGACCCGCTGCTGCGCCGCCGAAGCCGCCTGA

SEQ ID NO :2

bmaI3:

ATGTCATACATCATCGCGGGCCGATTGAACGAACGAACTGCCGCCGACGTCCAGA
 CCGATCTCGCGCGTATCGCTACGACGT
 GTTGGTGCCTGGCTCGGCTGGACGATCGCCGCCACTCGCTCGACGAACAT
 GCGGAGTGGGACGAGTTGACGGCCGT
 CGACGATTCATGTCGTCGCGCTCGACGACGCGCGAGATCTGCGGCTACGC
 ACGCCTGCTGCCGACGACGGCCGTAT
 CTGCTCGCGACGTGTTGCGCATCTGCTCGGCTCGTCGCCCGCGCAATC
 GCCTGCCGTCTGGAAATGTCGCGCTT
 CGCCCGTCCGCGCGCGCGAAGCGCGACCGAGCGCGAGCCGCTCGGCAT
 GGCCTTCTTCCGTCGGTGCTCACGGTGG
 CCGCGTCGCTCGCGCGACGCGCGTGGTCGGCGTATGACGCCATCGATCGA
 ACGCCTGTACCGCCGCTCGGGCATCGCG
 CTGCATCGCCTCGGCAACCGCGATGCCGGCGCGGCCAGCCTGTCCGCAT
 GCTCGATCGATCTGCCGCGCTCGCGTT
 CGCGCCGTTGGGCCTCAAGCAGTGCCTGGCGCTGGCGATGCATTGA

SEQ ID NO :3

bmaR1:

ATGGAACCTGCGCTGGCAAGACGCCATTCTCAATTAGCGCCGCGGAGAACG
 AGCAGCAGCTCTTCCAACAGATCGCCGC
 GTATACGAAGCGGCTCGGCTTCGAATATTGCTGCTATGGCATACGCGTGCCTG
 TGCCGATCTCGAAGCCGGTCTCGCGA

TTTTCGACACCTATCGAACGGCTGGATGGAGCGCTACCAGGAAATGAACTA
 CCTGGAGGTCGATCCGACCGTACCGAG
 GCGCGCTCAGCTCGAACATGATCGTCTGGCCGGAGGCAGCGCGAGCGAC
 GCGACGACGCTCTGGAGCGACGCGCGA
 TCACGGGCTGGCGGTGGCGTCGCGCAGTCGAGCTGGCCTCGCGCGGGTG
 TTCGGTCTCCTGACGATCGCGCGACA
 CGGACCGCCTGACGTCCGCCAGATCAACCATCTGACGTTGCAGGCGAACTG
 GCTCGGAACATGTCGCACTCGCTGATG
 AGCCGTTTCTCGTGCAGCTCGCGCCGAATCGGGCGTGGCGCTCACGC
 ACCCGAGCGGGAGGTGCTGTGCTGGAC
 GGGAGAGGGCAAGACCGCGTGCAGAGATCGGGCAGATCCTCAGCATCTCCGA
 GCGCACGGTGAACCTCACGTCAACAACA
 TCCTCGACAAGCTCGCGCGACGAACAAGGTGCAGGCCGTGTAAGGCGAT
 CGCGATGGGCTATCGACGCGCCGTA

SEQ ID NO :4

bmaR3:

ATGTCATACATCATCGCGGGCCGATTGAACGAACCGAACACTGCCGCCGACGTCCAGA
 CCGATCTCGCGCGTATCGCTACGACGT
 GTTCGTGCCCGGCTGGCTGGACGATCGCCGCCACTCGCTCGACGAACAT
 GCGGAGTGGGACGAGTTCGACGGCCGT
 CGACGATTATGTCGTCGCGCTCGACGACGCGCGAGATCTGCGGCTACGC
 ACGCCTGCTGCCGACGACGGCCGTAT
 CTGCTCGCGACGTGTTGCGATCTGCTCGGCTCGTCGCCCGCGCAATC
 GCCTGCCGTCTGGAAATGTCGCGCTT
 CGCCCGTCCGGCGGGCGGAAGCGCGACCGAGCGCGAGGCCGCTGGCAT
 GGCCTTCTTCCGTCGGTGCTCACGGTGG
 CCGCGTCGCTCGCGACGCGCGTGGTCGGCGTGTGATGACGCCATCGATCGA
 ACGCCTGTACCGCCGCTCGGGCATCGCG
 CTGCATGCCCTCGCAACGCGATGCCGGCGGGCGGCAGCCTGTCCGCAT
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SEQ ID NO :5

bmaR4:

ATGCCGTTGCCGATCCGCTGTGGCGAAGGGCCGTCGCCGCAGCAGCGCGGTG
 CGCCCGTGGGCCCGTCGCCGTGAG
 AACGCTACGTTCGCGACGAGACCGGGGCGCCGCGTGCACGGTCTTG
 CGGGCATGTCCCTGTCGATCGTCCGGCG
 ACGCTTGCCTGCGTGTGAGTCCGCCGACAATACCCGCAGCGGTCTTC
 AGCGGTCTTCGGCGCGACGCCGCG
 CCGCCATGCGTACGAGGGCGCATGGCGCAGCATGTTCGCGGCCCTGCCGGGGC
 GGCCTCGAGCGTGCCTGGCGGGAGCCGT
 GATGCAGGTGTGGCCGGCGCGCAGGGATTGAGCGATGCTCGAGCGCCGA
 GCGCCGGTTCGGCTCGCGCAGGCGGCC

GATTGTCCCGCCGCGTCGACGAAACGAACGGCGTGCCTGCTCGGCCGGCG
 CGGCAGGCAAGCTGCCGGCGTTGCC
 GCGCGCGGGCGCCGTTGCCCTCTGCCCTTCGAGCACGCTTCTCATTG
 GTTCGCTAACGTAACCTCCTCACTTGA
 GCTGGCGGGTCTATGTTGAAGGCTGTCCATTGGTCGTTAACGAAATT
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SEQ ID NO:6

bmaR5:

ATGAGGGCGCGATGGGAACTGGCGGAGGATCTGCTGGCGGGCTCGAC
 AGCGCACGATCCGAGGAAGAGGCCTTCG
 AAGCGTCGAAACCGCGCGCGCTCGATTCAAAACTGCGCATAACGGG
 CTGCGCGTGCCGTGGCCGCTGTCCAGGC
 CGCGCATCGAGACCGCGCAGCAACTTCCCAGCAATGGAAGCGCGCTACGT
 CGAGGCAGGGTTTCCTCGATGTCGATCCG
 ATTCTCGCGCACGGCGCCGATCGCAGCAACCGCTCGCTCGCCGAGACGC
 TGTTTGCCTCGCGCACCAAGATGTGGGT
 CGAGGCAGTCGTTGGGTTGCGGCTGGCTGGCGAGTCGAGCTCGAC
 GCGTATGGCGGATGGCATGCTCGCG
 TCGTCCGCTCGCGAGCCGGTACGGCGGAACTCGACGCGAAGGAGT
 ACCGGATGCGCTGGCTCGCACCAG
 CACGCCGCGCTGGCGCATGATGTTGCCAAGCTGATGGGGACCCGGAGC
 GCGGGCTGACCGAGCGCAGGGT
 GCTCAAGTGGCGGGACGGCAAGACGTCGGCGAGATCTGAAGATCCTC
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SEQ ID NO:7

bpmI1:

ATGCGAACTTCGTTCATGGCGACGGCGCCTGCCGAGCGACTTGGCGGCTG
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 ATGTGTTGCCCGCGACGACGACGGAAATCTGCGGCTGCGCCGGCTGCT
 GCCGACGACCCGCCGTATCTGCTGAAG
 GAACTGTTCCCGACGCTGGTCGCGCAAGACATGCCGTGCCGAATCCGCC
 CCGTCTGGGAATTGTCGCGCTCGCCGC
 GAACGCCGAGGATCCGGCCGGGGCGGCAACCCGGCTGGCGGTGCGGCC
 GATGCTCGCCGCCGTGAGTGC
 CGCGGCTTGGCGCGAAGCAACTGATCGCGTGACGTTCTGAGCATGGAGCG
 CCTGTTCCGCCGGATCGCGTGCACGCG
 CACCGGGCGGGGCCCGCAGCAGATCGACGGCGCATGGTCGTCGCGTGCT
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CGCGCTCGATCTGACCCGCTGCTGTGCGCCGCCGAAGCCGCCTGA

SEQ ID NO:8

bpmI2:

ATGATCGATACGACCGTCATAAGCGCCGCGCAACTGGATTCCACCGTCAAGG
 CAGCACTCGGCAATTATCGTCGGCGAT
 ATTCATCGAGAAACTCGGCTGGCATTGCCGTTGGTCGACGGGCTCGAGATC
 GATCAGTTCGATCGTCCCAGATCGATT
 ACGTGGTCGGCAAAACAGAGTCCGGCGATATCTGCGGATGCGCCCGCCTGCT
 GCCCACGACGAGGCCCTACCTGCTCGC
 GAGGTGTTCCCCGATCTGATGGCGACGCCGCGCCCTGCTCGCGCACG
 TGTGGAAATCTCGCGATTTCGTCTTC
 GATCCTCTCCGGAGGGCCGGACGCCGCTGCCGAGGCTACCGCAATACGCGC
 ATCCTGCTCGCGAAAATCGTCCGCTTG
 CGCAGGCGGCCGGCGTGAAGCGGCTGATCACCGTTGCCGCTCGCAGTCGA
 GC GGCTGCTCAACCGTCTGAAAGTCCAT
 ATTACCGCGGGTCCGCCCTCGTTGATCGACGGCAAGCCGGTTCGCGT
 GCTGGATCGAGGTGGACGACATCACGCT
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 CATTGTA

SEQ ID NO:9

bpmI3:

ATGTCATACATCATCGCGGCCGATTGAACGAACACTGCCGCCGACGTCCAGA
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 GTTCGTGCGCCGGCTCGGCTGGACGATCGCCGCCACTCGCTCGACGAACAT
 GCGGAGTGGGACGAGTTCGACGGCCGT
 CGACGATTATGTCGTCGCGCTCGACGACGCCGCGAGATCTGCGGCTACGC
 ACGCCTGCTGCCGACGACGGCCGTAT
 CTGCTGCGCACGTGTTGCGCATCTGCTCGGCTCGTCGCCCGCCGCAATC
 GCCTGCCGTCTGGAAATGTCGCGCTT
 CGCCCGTGTGCCGCCGGCGGCGAAGCGCGACCGAGCGCGAGCCGCTCGGCAT
 GGC GTTCTTCCGTCGGTGCTCACGGTGG
 CCGCGTCGCTGCCGCCGACGCCGCTGGCTGGCGTATGACGCCATCGATCGA
 ACGCCTGTACCGCCGCTCGGGCATCGC
 CTGCATCGCCTCGGCAACCGCGATGCCGGCGGGCGGCAGCCTGTCCGCAT
 GCTCGATCGATCTGCCGCCCTCGCGTT
 CGCGCCGTTGGGCCGCAAGCAGTGCACGCCGGCGCTGGCGATGCATTGA

SEQ ID NO:10

bpmR1:

ATGGAACCTGCGCTGGCAAGACGCCATCTTCAATTAGCGCCGCGGAGAACG
 AGCAGCAGCTCTTCCAACAGATCGCCGC
 GTATACGAAGCGGCTCGGCTTCGAATATTGCTGCTATGGCATACGCGTGCCTG
 TGCCGATCTCGAAGCCGGTCGCGA

TTTTCGACACCTATCCGAACGGCTGGATGGAGCGCTACCAGGAAATGAAC
 CCTGGAGGTCGATCCGACCGTACCGAG
 GGCACGCTCAGCTCGAACATGATCGTCTGGCCGGAGGCAGCGCGAGCGAC
 GCGACGACGCTCTGGAGCGACGCGCGA
 TCACGGGCTGGCGGTCGGCGTCGCAGTCGAGCTGGGCCTCGCGCGGGGTG
 TTCGGTCTCCTGACGATCGCGCGAC
 CCGACCGCCTGACGTCCGCCAGATCAACCATCTGACGTTGCAGGCGAACTG
 GCTCGGAACATGTCGCACTCGCTGATG
 AGCCGTTTCTCGTGCCGAAGCTCGCGCCGAATCGGGCGTGGCGCTCACGC
 ACCCGAGCGGGAGGTGCTGTGCTGGAC
 GGGGGAGGGCAAGACCGCGTGCAGATCGGGCAGATCCTCAGCATCTCCGA
 GCGCACGGTGAACCTTCACGTCAACAA
 TCCTCGACAAGCTCGCGCGACGAACAAGGTGCAGGCCGTGAAAGGCGAT
 CGCGATGGGCTATCGACGCGCCGTAA

SEQ ID NO:11

bpmR2:

ATGGAGATGCACGACTTCTCAATTGGCTAACGAATTTCACGCAGTGA
 GAACCCACAGCACGTCATTCCGTCTT
 GACCCCGCGCGGCCGCGACGCTCGGCTACGAATACGCCGCACGGCATGCGC
 CGCCCTTCCGATCAGCAATCCGCCA
 TCCTCATGGTGTCCAACATACCCGCCGATGGCAGGAACGCTATATCGAAGC
 GCGATTCGCGAACATCGACGGCGCGGTG
 AAGGCCCGCTCGGCAGCGACCGGCCGTGACCTGGAGCGCGCCGCCAAC
 GCATCGAAAAGCGCATTCTGGCGGGAGGC
 GCTGCGTTGGCATGCCACGGCTGGTGTCCCGTGCACGGGGCGCGGAC
 GGCGCGATCGCGTGTGACGCTGTCGA
 GAACGCAGGACCCGATCGACACCGCGGAGAAGTTCGCAACGAGAGCATCG
 TGCACGGCTGCCAATGTCGCTATGCG
 TCGATGGCGCCGTTCTGCCGCCGACGAGTTCGATCCGGACCTCACGC
 GCCCGAGACCGATGTGCTGAAATGGAC
 GGCGACGGAAAGACAGCGTACGAAATCGCGCTGATTCTCAGCATCTCGGAG
 AGCACCGTCAATTTCACGTGAAGAATA
 TCGTCTCCAAGCTGGCTCCACGAACAAGATACAGGCCGTGGCCAAGGCCGC
 GCTGATGGGATGCTGTGA

SEQ ID NO:12

bpmR3:

ATGCTCTCCGCCGCGTTGCCGAATCGCGCGACGTCCGCACGCTGGTCGAGA
 CTTTCAGGCAGGCAGCGCTGCAGATCGG
 CTACCAAGCACCATCGGATCGCGAGCTGTCGGCGCATCGCATCCGGCGTCG
 ATCGACGTCGTCTCGCTGCACTATCCGT
 CCGAGTGGGTCGAGCACTACACCCGCAACGACTACTTCGCGATCGATCCC
 GTCCATCGCGCGCATTCCGCTACAGCACG

CCGTTCTCGTGGAACGACGTCGCACGGCGAACCTGCGAGCGGCATCTGC
 TGATGGAAGCCGAGGACGCGGGCCTCGA
 CAACGGCATCAGCATCCCGCTGCATCAGCCGCTGGACGCGTGCTGCTGGTG
 AGCCTGTCCGGCACCGCGCCGACGCACG
 ATGCCGATGCGAAATGGCGAACCGCGTACCTGCTCGGCATGCAGTTCAATCT
 GCAGTTCCAGAGCATGCGCACGTGCCGC
 CCGATTCCGCCGTCCGTCCACCTGACGGATCGCGAACAGATGTGCCTCACGT
 GGGTCGCGCGCGCAAGTCGTCGTGGGT
 CATCGCGAACATGCTCGACATCTCCAAATACACGGTCGACTTCCACATCGAG
 AACCGATGGAGAAGCTAACACACCGCA
 GCCGCACGTTCGCCGCCGTGAAGGCGACGCCAGGGGCTCATTTCCATG
 A

SEQ ID NO:13

bpmR4:

ATGGCGCGAACGCGCCGAGGGGCAAGCGAACCGGCCAGCGCGCGGCC
 GGCACGATAGCCGCCGACCTGCGTTCCG
 CGCCCGCCGCACAGGCGGGTCGCCCGCGCGTCAGATCAACCCG
 GGCACGCGGCCGCGCGCTCAGATCAACCCG
 CGCAGCGATGCGATGACGACCGCCTGCGCGCGTTGTTCGCGCCTATCTTGC
 GTGCGCGTTCGACAGATGAAACACGAC
 CGTGCCTCCGAGATGCCGAGAACATCTCGAGATTCCCACGCCGCTTGCCGC
 GCCCCGCCACTGCAGCGATTGCGCT
 CGCGCGCGGTCAAGATCGCACGAGCCCTGCCGTCTGAGCCGCAATCGAGCAG
 CTCGTGCATGCCCGTGCACGAAGCTC
 GCGAGCAACTGCGACAGGCTCAGCAGCCGAGTATGTCGCTCGCGTCGTGCT
 CGAACGGATCGCGGCCATGCTGAG
 CATGCTGATCGCGCCGCTGCGATCGAACGGGCAACTGAGCCCGTAGACG
 AGGCCGTACGATTGCGCTCGCGCA
 TGAGCTTCGCGCGGCTGGTCTATAGAGGTCGTCGTGCCAGATGAGCGGCAC
 GGTCCGGCACCGGCAATGCTGAACGACG
 GGATCGATCGACAGGTAGTCGGCGGCGTCAAGCGCAGCCGCACTCGGCCG
 GAAATCCGTCGAGCATGCGAGCGGCTCGA
 CGCCCGCCGGAGATCTGATGCCGGTACCGAAATTCTGAAGCCCAGTTGG
 CGAACGTGATACGCCGTCTGCTCAAAGA
 GGCTCTTCTGCAAGTCGCGTTCAGAACATTGTTAAACGAACCAATGGACAA
 GCCTCGAACATAGAACCGCCCAGCTCA
 AGTGA

SEQ ID NO:14

bpmR5:

ATGAGGGCGCGATGGGAACTGGCGGAGGATCTGCTGGCGGGGCTCGAC
 AGCGCACGATCCGAGGAAGAGGGCGTTCG
 AAGCGTCGAAACCGCGGGCGCGCTCGATTGAAATCTGCGCATAACGGG
 CTGCGCGTGCCTGGCCGCTGTCCAGGC

CGCGCATCGAGACGCGCAGCAACTTCCGAGCAATGGAAGCGGCCTACGT
 CGAGGC GGTTTCCCTCGACGTCGATCCG
 ATTCTCGCGCACGGCCGCGATCGCAGCAACC GGTCGTCCTCGCCGAGACGC
 TGTTGCGTCCGCGCACCAAGATGTGGGT
 CGAGGCGCAGTCGTTGGGTTGCGGTTGGCTGGCGAGTCGAGCTCGAC
 GCGTATGGCGGCATGGCATGCTCGCG
 TCGTCCGCTCGTGCAGGCCGGTACGGCGGGAACTCGACGCGAAGGAGTA
 CCGGATGCGCTGGCTCGTGCACCGCG
 CACGCCGCGCTCGGCCGCATGATGTTGCCAAGCTGATGGCGGACCCGGAGC
 GCGGGCTGACCGAGCGCGAGGTCGAGGT
 GCTCAAGTGGCGGGACGGCAAGACGTCCGGCGAGATCTGAAGATCCTC
 GCGATATCCGTCGATACGGTGAATTCC
 ACGTGAAGAACCGCATCCTGAAGCTCAGGACGGCGAACAAAGACGGCGGCCG
 TCGTGC CGCGGGCGATGCTGGGTTGCTG
 AGCTGA

SEQ ID NO:15

bmaI1:

MRTFVHDGRRLPSDLAADLGLYRHFVVEQLGWLPSASEGFERDQYDRDDTV
 YVFARDDDGEICGCARLLPTTRPYLLK
 ELFPTLVAQDMPLPQSAAVWELSRFAANAEDPAGGGNPAWAVRPMIAAVVEC
 AARLGAKQLIGVTFLSMERLFRRIGVHA
 HRAGPAQQIDGRMVVACWIDLDAQTLAALLDPLLCAPPAA

SEQ ID NO:16

bmaI3:

MSYIIA GRLNELPPHVQTDLGAYRYDVFVRLGWTIAGHSLDEHAEWDEFDGPS
 TIHVVALDDAREICGYARLLPTTGPY
 LLRDVFAHLLGSSPAPQSPA VWE MSRFAASRRRRSATEREPLGMAFFPSVLTVA
 ASLGATRVVGVMTPSIERLYRRSGIA
 LHRLGNAMPAGGSLSACSIDLPLRAFAPLGLKQCAACLAMH

SEQ ID NO:17

bmaR1:

MELRWQDAYLQFSAAENEQQLFQQIAAYTKRLGFYCCYIRVPLPISKPVVAIF
 DTYPNGWMERYQEMNYLEVDPVTRE
 GALSSNMIVWPEASASDATTLWSDARDHGLAVGVAQSSWASRGVFGLLTIARH
 TDRLTSAEINHTLQANWLANMSHSLM
 SRFVLVPKLAPESGVALTHREREVLCWTGEGKTACEIGQILSISERTVNFHVNNILD
 KLGATNKVQAVVKAIAMGLIDAP

SEQ ID NO:18

bmaR3:

MSYIIA GRLNELPPHVQTDLGAYRYDVFVRLGWTIAGHSLDEHAEWDEFDGPS
 TIHVVALDDAREICGYARLLPTTGPY

LLRDVFAHLLGSSPAPQSPA VWE MSRFAASRRRSAT EPLGM AFFPSVLTVA
 ASLGATRVVGVMTPSIERLYRRSGIA
 LHRLGNAMPAGGSL SACSIDL PRLAFAPLGLKQCAACLAMH

SEQ ID NO:19

bmaR4:

MPLPIRCGEGPSPQQRGAPRAARRPSRTLRSATRPGAPRARTVLRACPVRSSADA
 CVVRVESADNHPQRSSAVFRRATPG
 PPCVVRGRMAQHVVRGLPGRRACAAAAMQVWPARAGFERCSSAERRFGFGAG
 GRLSRRVRRNERRAVLRRRGRQARRFA
 ARGPPPLPSRPFRARFLHWFANVTSSLEGGSMFEGLSIGSFNEILNATCKSLFEQ
 TAYH

SEQ ID NO:20

bmaR5:

MRAAMGNWAEDLLAGLDSARSEEEAFRSVETAAAALDFEYCA YGLRVPWPLSR
 PRIETRSNFPEQWKRRYVEAGFLDVDP
 ILAHGRRSQQPVVLAETLFASAHQMWVEAQSFGLRFGWAQSSFDAYGGMGML
 ALVRSREPVTAAELDAKEYRMRWLVRTA
 HAALGRMMLPKLMADPERGLTEREVEVLKWAADGKTSGEISKILAISVDTVNFH
 VKNAILKLRTANKTAAVVRAAMLGLLS

SEQ ID NO:21

bpmI1:

MRTFVHDGRLPSDLAADLGLYRHFVVEQLGWKLPSASEGFERDQYDRDDTV
 YVFARDDDGEICGCARLLPTTRPYLLK
 ELFPTLVAQDMPLPQSAAVWELSRFAANAEDPAGGGNPAWAVRPMЛАAVVEC
 AARLGAKQLIGVTFLSMERLFRRIGVHA
 HRAGPAQQIDGRMVVACWIDLDAQTLAALDDPLLCAPPAEAA

SEQ ID NO:22

bpmI2:

MIDTTVISAAQLDSTVKAALGNYRRAIFIEKLGWPLPLVDGLEIDQFDRPDTIYVV
 GKTESGDI CGCARLLPTTRPYLLG
 EVFPDLMGDAAPPCSAHVWEISRFSSSILSGGPDALRQAHRNTRILLAKIVRFAQA
 AGVKRLITVSPLAVERLLNRLKVH
 IHRAGPPRLIDGKPVFACWIEVDDITLQALDIEPAADSAAGALRHS

SEQ ID NO:23

bpmI3:

MSYIIAGRLNELPPHVQTDLGAYRYDVFVRRLGWTIAGHSLDEHAEWDEFDGPS
 TIHVVALDDAREICGYARLLPTTGPY
 LLRDVFAHLLGSSPAPQSPA VWE MSRFAASRRRSAT EPLGM AFFPSVLTVA
 ASLGATRVVGVMTPSIERLYRRSGIA
 LHRLGNAMPAGGSL SACSIDL PRLAFAPLGRKQCAACLAMH

SEQ ID NO:24

bpmR1:

MELRWQDAYLQFSAAENEQQLFQQIAAYTKRLGFEYCCYGIRVPLPISKPVVAIF
 DTYPNGWMERYQEMNYLEVDPPTVRE
 GALSSNMIVWPEASASDATTLWSDARDHGLAVGVAQSSWASRGVFGLLTIARH
 TDRLTSAEINHTLQANWLANMSHSLM
 SRFLVPKLAPESGVALTHREREVLCWTGEGKTACEIGQILSISERTVNFHVNILD
 KLGATNKVQAVVKAIAMGLIDAP

SEQ ID NO:25

bpmR2:

MEMHDFLQFWLNEFSRSENPQHVISVLTRAATLGYEYAAYGMRRPFISNPPIL
 MVSNYPARWQERYIEARFANIDGAV
 KAALGSDRPVTWSAPANASKSAFWAEALSGIAHGWSASRGADGAIGVLTLSR
 TQDPIDTAEKFRNESIVH WLANVAHA
 SMAPFLPAADEFDPDLTTRRTDVLKWTADGKTAYEIALILSISESTVNFHVKNIVS
 KLGSTNQIQA VAKA ALMGML

SEQ ID NO:26

bpmR3:

MLSAALPESRDVRTLVETFRQAALQIGYQHHAIVELSGASHPASIDVVSLHYPSE
 WVEHYTRNDYFAIDPVHRAAFRYST
 PFSWNDVATANLRERHLLMEAEDAGLDNGISIPLHQPLGRVLLVSLSGTAPTHDA
 DAKWRNAYLLGMQFNLLQFQSMRTCR
 PIPPSVHLDREQMCLTWVARGKSSWVIANMLDISKYTVDFHIENAMEKLNTRS
 RTFAAVKATRQGLIFF

SEQ ID NO:27

bpmR4:

MARTRRGASESRRSARAGAIAARPAFRARRTGGSPRGRAQPLARGGARSDQPA
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 RALRDAENLRDFPRRLAAPRPLQRFALARGQIARALPSEPAIEQLVHRRVHEARE
 QLRQAQQPQYVARVVERIVGRHAE
 HADRAAAIVNGATEPVDEAVRFRLVAHELRAAGRIEVVVPDERHGPAPAMLND
 GIDRQVVGVVAAQPPGLRKSVEHAAAR
 RRAGDLMPVREILEAQLANVIRLLKEALLASRVQNFVKRTNGQAFEHRTAQLK

SEQ ID NO:28

bpmR5:

MRAAMGNWAEDLLAGLDSARSEEEAFRSVETAAAALDFEYCA YGLRVPWPLSR
 PRIETRSNFPEQWKRRYVEAGFLDVDP
 ILAHGRRSQQPVVLATLFASAHQM WVEAQSFGLRGWAQSSFDAYGGMGML
 ALVRSCEPVTAELDAKEYRMRWLVRTA
 HAALGRMMLPKLMADPERGLTEREVEVLKWAADGKTSGEISKILAISVDTVNFH
 VKNAILKLRTANKTAAVVRAAMLGLLS.

SEQ ID NO:29
F 5'-CCCGCGACGACGACGGGGAAATC-3'

SEQ ID NO:30
R 5'-TCGATCCAGCACGCGACGACCAT-3'

SEQ ID NO:31
F 5'-ATAAGCGCCGCGCAACTGGATTCC-3'

SEQ ID NO:32
R 5'-CAGGATCGCCGTATTGCGGTGAGC-3'

SEQ ID NO:33
F 5'-TCGCGGGCCGATTGAACGAACTGC-3'

SEQ ID NO:34
R 5'-GAGCGACGCCGCCACCGTGAGCAC-3'

SEQ ID NO:35
F 5'-CGGCTTCGAATATTGCTGCTATGG-3'

SEQ ID NO:36
R 5'-GAGAAAACGGCTCATCAGCGAGTG-3'

SEQ ID NO:37
F 5'-AGCGACCGGCCGTGACCTGGAG-3'

SEQ ID NO:38
R 5'-CGGCCTGTATCTGTTCGTGGAG-3'

SEQ ID NO:39
F 5'-AGACGTCGTCTCGCTGCACTATCC-3'

SEQ ID NO:40
R 5'-ACCCACGTGAGGCACATCTGTTCG-3'

SEQ ID NO:41
F 5'-GGCGTTCGACAGATGAAACACGAC-3'

SEQ ID NO:42
R 5'-GCTCATCTGGCACGACGACCTCTA-3'

SEQ ID NO:43
F 5'-CGCGTGCCGTGGCCGCTGTCCA-3'

SEQ ID NO:44
R 5'-CCGCGCTCCGGGTCCGCCATCAG-3'